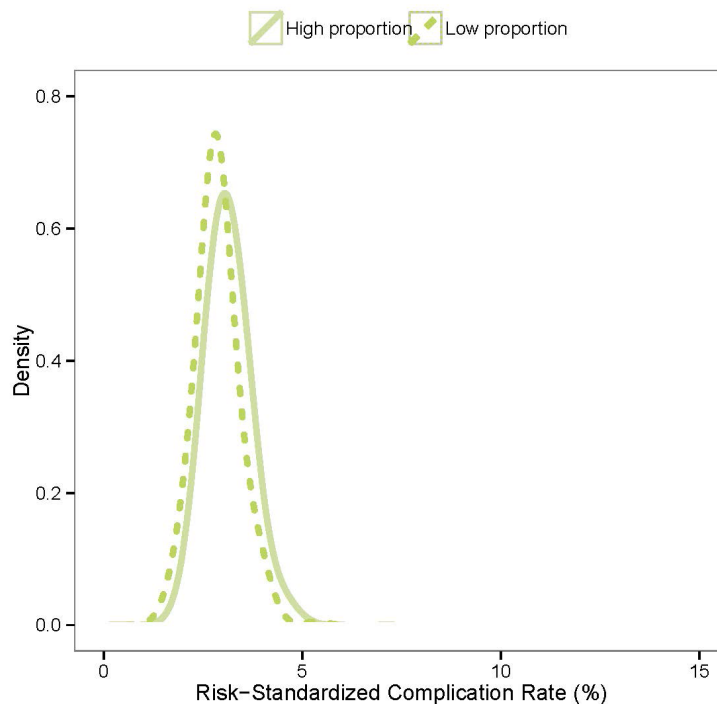


► **Performance on the elective primary total hip arthroplasty and/or total knee arthroplasty complication measure:** Hospitals that serve high and low proportions of Medicaid patients.

The Centers for Medicare & Medicaid Services (CMS) periodically investigates select hospital practices that may impact a hospital's performance on the following complication measure: hospital-level risk-standardized complication rate (RSCR) following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA) [1]. The THA/TKA complication measure includes Medicare fee-for-service (FFS) beneficiaries aged 65 or older and assesses the occurrence of significant medical and/or surgical complications within 7 to 90 days, depending on the complication, from the date of admission for elective primary THA/TKA. Medical and surgical complications include: acute myocardial infarction (AMI), pneumonia, or sepsis/septicemia during hospitalization or within 7 days from the date of admission; surgical site bleeding, pulmonary embolism or death during the index admission or within 30 days from the date of the index admission; or mechanical complications, periprosthetic joint infection, or wound infection during the index admission or within 90 days from the date of the index admission [2]. The THA/TKA complication measure has been publicly reported on [Hospital Compare](#) since 2013, and in Fiscal Year 2019, it will be included in the Hospital Value-Based Purchasing (HVBP) program [3, 4, 5].

FIGURE I. Distributions of THA/TKA RSCRs (%) for hospitals with the lowest and highest proportions of Medicaid admissions, April 2012-March 2015.



Variation in RSCRs reflects differences in performance among hospitals; lower RSCRs suggest better quality and higher RSCRs suggest worse quality. To understand how caring for Medicaid patients might impact a hospital's RSCR, we examined RSCRs among hospitals with high and low proportions of Medicaid patients. We compared the THA/TKA RSCRs for the 275 hospitals with the lowest overall proportion of Medicaid admissions ($\leq 6.5\%$ of a hospital's admissions) to the 276 hospitals with the highest overall proportion of Medicaid admissions ($\geq 28.6\%$ of a hospital's admissions) for the April 2012 – March 2015 reporting period. We defined hospitals with the lowest and highest proportions of Medicaid admissions as those that fall within the lowest and highest deciles of all hospitals with 25 or more qualifying admissions. The proportion of Medicaid admissions for each hospital was determined using the American Hospital Association (AHA) Annual Survey Database Fiscal Year 2014 [6]. To ensure accurate assessment of each hospital, the THA/TKA complication measure uses a statistical model to adjust for key differences in patient risk factors that are clinically relevant and that have a strong relationship with the specified complications [2].

TABLE I. Distributions of THA/TKA RSCRs (%) for hospitals with the lowest and highest proportions of Medicaid admissions, April 2012-March 2015.

	THA/TKA RSCR (%)	
	Lowest proportion ($\leq 6.5\%$) Medicaid admissions; n=275	Highest proportion ($\geq 28.6\%$) Medicaid admissions; n=276
Maximum	5.3	4.8
90%	3.6	3.7
75%	3.1	3.4
Median (50%)	2.8	3.1
25%	2.6	2.7
10%	2.2	2.5
Minimum	1.6	1.9

The median THA/TKA RSCR for hospitals with the lowest proportion of Medicaid admissions was 2.8% (interquartile range [IQR]: 2.6%-3.1%; Figure 1 and Table 1). The median THA/TKA RSCR for hospitals with the highest proportion of Medicaid admissions was 3.1% (IQR: 2.7%- 3.4%; Figure 1 and Table 1).

Hospitals with the lowest proportion of Medicaid admissions had a median THA/TKA RSCR that was 0.3 percentage points lower than that of hospitals with the highest proportion.

1. 2015 Medicare Hospital Quality Chartbook. Prepared by Yale New Haven Health Services Corporation Center for Outcomes Research and Evaluation for the Centers for Medicare and Medicaid Services. <https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/hospitalqualityinits/outcomemeasures.html>. Accessed March 1, 2016.
2. Dorsey, K., Grady, J., Suter, L. G., et al. 2016 Procedure-Specific Measure Updates and Specifications Report Hospital-Level Risk-Standardized Complication Measure: Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (TKA) – Version 5.0. <https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228772782693>. Accessed May 9, 2016.
3. Hospital Inpatient Quality Reporting (IQR) Program Overview. QualityNet website. <https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1138115987129>. Accessed March 1, 2016.
4. Centers for Medicare and Medicaid Services. Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals, Final Rule Fiscal Year 2016. 80 FR 49325. Federal Register website. <https://federalregister.gov/a/2015-19049>. Published August 17, 2015. Effective October 1, 2015. Accessed March, 2 2016.
5. Hospital Value-Based Purchasing (HVBP) Overview. QualityNet website. <https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1228772039937>. Accessed March 1, 2016.
6. American Hospital Association (AHA) Annual Survey Database Fiscal Year 2014. <http://www.ahadataviewer.com/book-cd-products/aha-survey/>. Accessed March 2, 2016.

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